

REMARKS / DISCUSSION OF ISSUES

Claims 1, 3, 5 – 11 and 13 are pending in the application. Claims 1, 8 and 11 are independent.

In the present response, the claims are not amended.

35 U.S.C. 103

Under 35 U.S.C. 103(a), the Office Action rejects claims 1, 5 – 11 and 13 over Lundkvist (WO 02/035036 A1), in view of Blumenau et al., (U.S. Pat 6,493,825 B1), hereinafter Blumenau.

Applicant submits that for at least the following reasons, claims 1, 5 – 11 and 13 are patentable over Lundkvist and Blumenau.

For example, claim 1, is directed to a method for a first communication device to performing authenticated distance measurement between said first communication device and a second communication device, and the claim, in part, requires:

"transmitting a first signal from the first communication device to the second communication device at a first time t1, said second communication device being adapted for
receiving said first signal,
generating a second signal by modifying the received first signal according to the common secret, and
transmitting the second signal to the first communication device;
receiving the second signal at a second time t2;
generating by the first communication device a third signal by modifying the first signal according to the common secret;
comparing the third signal with the received second signal to check if the second signal has been modified according to the common secret."

Therefore, the claimed invention requires that the first communication device to transmit the first signal and generate the third signal; and the second communication device to generate and transmit the second signal.

In the Office Action, page 5, the Patent Office interpreted, in Fig. 1 of Lundkvist, the vehicle, element 1, as the first communication device, and the portable unit, element 2, as the second communication device. Lundkvist, Fig. 3, paragraph [0034], apparently discloses that a third signal Y2 is generated by the second device. Apparently, the first device in Lundkvist, decrypts signals (Z and Y2) received from the second device, but it does not perform any modification on the first signal X to generate any third signal. Therefore, Lundkvist does not teach or suggest that the third signal is generated by the first communication device by modifying the first signal according to the common secret, as claimed.

In the Office Action, page 6, lines 13 – 14, the Patent Office interpreted the STORAGE SUBSYSTEM PORT ADAPTER in Blumenau as the first communication device in the claimed invention. Applicants respectfully traverse such interpretation. Blumenau, column 37, lines 46 – 47 and Fig. 33, element 381, clearly shows that it is the HOST CONTROLLER that sends a request in the first step of the process. Since the HOST CONTROLLER sends the first signal, the HOST CONTROLLER should be identified with the first communication device as claimed, while the STORAGE SUBSYSTEM PORT ADAPTER should be identified with the second communication device as claimed. Since the HOST CONTROLLER (first communication device) in Blumenau does not generate a third signal by modifying the first signal according to the common secret, or compare the third signal with the received second signal to check if the second signal has been modified according to the common secret, thus Blumenau also fails to disclose the above claimed features.

In the Office Action, pages 2 – 3, the Patent Office argued that even though the first and second communication devices are inconsistent between Lundkvist and Blumenau, the combined teachings from the references would have suggested to those of ordinary skill in the art the claimed invention. Applicant respectfully disagrees.

According to MPEP 2143.01, Section VI: *"If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious."*

Applicant submits that combining Lundkvist and Blumenau would change the principle of operation of Lundkvist and Blumenau. Lundkvist discloses that it is the first communication system that sends the first signal X in order to perform the distance measurement (Lundkvist, Fig. 2 and page 8, lines 24 – 26). As discussed above, the Office Action alleged that the STORAGE SUBSYSTEM PORT ADAPTER in Blumenau is the first communication device. However, the STORAGE SUBSYSTEM PORT ADAPTER in Blumenau is the one that sends the second signal, not the first signal. Applicant submits that it is the first communication device that performs the authenticated distance measurement, not the second communication device; and clearly, the roles of the first and second communication devices are very different and are not interchangeable. Combining Lundkvist and Blumenau would require reversing the roles of the first and second communication devices, disregarding the first signal, reclassifying the second signal as the first signal, and the third signal as the second signal, etc. Therefore, the principle of operation of Lundkvist and Blumenau would have been changed.

In view of at least the foregoing, Applicant submits that it is not obvious for a person ordinarily skilled in the art to combine Lundkvist and Blumenau to arrive at the claimed invention without the benefit of impermissible hindsight.

Independent claims 8 and 11 contain many similar distinguishing features as in claim 1. Applicant essentially repeats the above arguments for claim 1 and applies them to claims 8 and 11 pointing out why it is not obvious for a person ordinarily skilled in the art to combine Lundkvist and Blumenau to arrive at the claimed invention without the benefit of impermissible hindsight.

Claims 5 – 7, 9, 10 and 13 respectively depend from claims 1, 8 and 11, and inherit all the respective features of claims 1, 8 and 11. Thus, claims 5 – 7, 9, 10 and 13 are patentable for at least the reasons discussed above with respect to each independent claim from which they depend, with each dependent claim containing further distinguishing features.

Under 35 U.S.C. 103(a), the Office Action also rejects claim 3 over Lundkvist in view of Blumenau, in further view of Rofheart et al. (WO 01/93434 A2), hereinafter referred to as Rofheart.

Claim 3 depends from claim 1 and inherits all the features of claim 1. Applicants submit that Rofheart does not in any way cure the defects pointed out above with respect to Lundkvist and Blumenau with respect to claim 1 above. Thus claim 3 is patentable over Lundkvist, Blumenau and Rofheart for at least the reason that it depends from claim 1, with further distinguishing features.

Withdrawal of the rejection of claims 1, 3, 5 – 11 and 13 under 35 U.S.C. §103(a) is respectfully requested.

Conclusion

In view of the foregoing, Applicant respectfully requests that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

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